

<p align="center">11 BLOOD PROTEIN DETECTION</p>	<p align="center">Page 1 of 1</p>
<p align="center">Division of Forensic Science</p> <p align="center">LATENT FINGERPRINTS PROCEDURES MANUAL</p>	<p align="center">Amendment Designator:</p>
	<p align="center">Effective Date: 29-January-2004</p>
<div data-bbox="643 291 1055 321" data-label="Section-Header"> <h2 align="center">11 NINHYDRIN-BLOOD PRINTS</h2> </div> <div data-bbox="151 354 422 384" data-label="Section-Header"> <h3>11.1 INTRODUCTION</h3> </div> <div data-bbox="207 415 1515 506" data-label="Text"> <p>Ninhydrin is a protein indicator particularly sensitive to alpha amino acids but ninhydrin is also sensitive to the proteins present in blood. Ninhydrin can be used on any surface but should primarily be used on porous items. Porous items can be processed with ninhydrin visualizing both blood proteins and other alpha amino acids.</p> </div> <div data-bbox="151 537 418 567" data-label="Section-Header"> <h3>11.2 PREPARATIONS</h3> </div> <div data-bbox="207 598 732 627" data-label="Text"> <p>See Chemical Processing of Porous-Ninhydrin</p> </div> <div data-bbox="151 657 698 686" data-label="Section-Header"> <h3>11.3 MINIMUM STANDARDS & CONTROLS</h3> </div> <div data-bbox="207 718 737 747" data-label="Text"> <p>See Chemical Processing of Porous-Ninhydrin.</p> </div> <div data-bbox="151 779 565 808" data-label="Section-Header"> <h3>11.4 PROCEDURE OR ANALYSIS</h3> </div> <div data-bbox="207 840 737 869" data-label="Text"> <p>See Chemical Processing of Porous-Ninhydrin.</p> </div> <div data-bbox="151 900 621 930" data-label="Section-Header"> <h3>11.5 INTERPRETATION OF RESULTS</h3> </div> <div data-bbox="207 961 1515 1085" data-label="Text"> <p>The blood impressions as well as other protein based impressions will be intensified and additional detail not previously visible may be revealed. Ninhydrin coloration is not permanent, and while some impressions have remained visible for years, others have faded in a matter of days. Photographic preservation is essential and should be accomplished as soon as possible. Image density is usually improved using a color compensating filter during photography.</p> </div> <div data-bbox="207 1115 1515 1205" data-label="Text"> <p>A green filter, Wratten #58, is usually preferred; however, with yellowish backgrounds, a yellow filter, Wratten #12, gives both added intensity and lessen background interference. Other shades of green and yellow, alone or combined, may provide even better complement.</p> </div> <div data-bbox="151 1236 389 1266" data-label="Section-Header"> <h3>11.6 REFERENCES</h3> </div> <div data-bbox="207 1297 1515 1694" data-label="List-Group"> <ol style="list-style-type: none"> 1. Cowger, James F. <i>Friction Ridge Skin Comparison and Identification of Fingerprints</i>; Boca Raton: CRC Press, 1993. 2. Lee, Henry C.; Gaensslen, R. E., eds. <i>Advances in Fingerprint Technology</i>; Elsevier Science Publishers: NY, 1991. 3. Lennard, Christopher J.; Pierre A. Margot. "Sequencing of Reagents for the Improved Visualization of Latent Fingerprints"; <i>Journal of Forensic Identification</i>, September/October 1988, 38, 5, 197-210. 4. Kent, Terry, ed. <i>Fingerprint Development Techniques</i>; Heanor Gate Publisher: Derbyshire, England, 1993. 5. Olson, Robert. <i>Scott's Fingerprint Mechanics</i>; Charles C. Thomas Publisher: Springfield, IL, 1978. 6. Pounds, C.A.; R.J. Jones. "Physicochemical Techniques in the Development of Latent Fingerprints"; <i>Trends in Analytical Chemistry</i>, 1983, 2, 8, 180-183. </div> <div data-bbox="1490 1726 1549 1755" data-label="Text"> <p align="right">◆End</p> </div>	